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The Time Management Practices of Brigham Young University Students

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A thesis submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Master of Science

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April 2011

ABSTRACT

The Time Management Practices of Brigham Young University Students

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The use of, and attitudes towards, time management among undergraduates at Brigham Young University (BYU) was examined. Data were collected using two online surveys and an electronic time log tool. The data from the surveys were analyzed using canonical correlations, multiple regressions, multivariate analysis of variance (MANOVA), factor analysis, and multivariate graphical methods. Pilot survey results showed freshmen who were concerned with time management and organization had lower GPAs than those who asserted they were spontaneous and successful without time management. The main survey produced contradictory evidence, showing positive correlations for both freshmen and sophomores between GPA and students who agreed with self-descriptors that showed strong resolve for planning and structure. Time log data showed students on academic probation do not spend as much time on academic based activities as students in the control group. These findings suggest a need for further research into both BYU students' attitudes towards time management and the time use differences between high academically achieving students and students on academic probation.

ACKNOWLEDGMENTS

I would like to thank my husband, Jeremy, for supporting me through this arduous process. I would also like to thank my mom and dad for their unconditional encouragement and always believing that someday this would be completed. And, of course, this thesis would not be what it is today if it weren't for Dr. Brown, and a number of amazing colleagues who helped me along the way.

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The Time Management Practices of Brigham Young University Students

Time management, and its impact on performance and achievement, has been researched extensively over the last few decades. Many people believe that time management is the key to success in academics, business and many other aspects of life. However, previous research on time management has not produced consistent findings as to whether or not time management is imperative to academic success.

Studying previous research on time management reveals significant work in the area of evaluating how the perception of time and time control affects individual performance. Macan, Dipboye and Phillips (1990) examined the correlation between time perception and individual performance in college students. The results of their study showed that performance and stress levels correlated with students' perceptions of their personal control of time. Students who felt they had greater control of their time reported greater satisfaction at work and in their lives as a whole. These students also reported higher GPAs and higher performance ratings compared to other students. Results indicated that a variety of factors such as goal-setting, planning, perception of control of time, and preference for disorganization, affected time management skills and perception. Of these factors, perceived control of time was the greatest contributor to higher performance and lower stress. While this study used self-reports to collect data, and is, thus, limited in some ways, these finding do indicate that students who believe they have greater control of their time tend to feeling better about their academic performance. This does not, however, mean that a strong perception of time control *necessarily* correlates to academic success.

Perceived control of time was also examined in a study by Nonis and Hudson (2006). They found that perceived control of time affected academic stress, aspects of problem-solving

skills like personal control and approach avoidance, and stress-influenced outcomes such as health. The researchers, however, did not find a statistically significant relationship between academic performance and perceived control over time or academic stress.

Another dimension of time management research has been the investigation of the possibility of consequences that may occur when people are remiss in properly managing their time. In some ways, for example, procrastination can be considered a form of time management. Various studies have examined the effect of procrastination on performance. Pychyl, Morin, and Salmon (2000) observed the study habits of thirty-two undergraduate students preparing for midterms. They found that both procrastinating and non-procrastinating students did not overly estimate the amount of time they would spend on study preparations. Therefore, neither group of students fell into the "planning fallacy" of being overly optimistic in time management predictions. This study implied that at least one aspect of planning may be equally present among procrastinators and non-procrastinators.

Another study on procrastination by Ferrari and Diaz-Marales (2007) examined motives, as they relate to time usage and participants' concepts of time. Researchers found that distinct personality styles of procrastination were related to specific forms of time orientation. In other words, the way people view time may affect how, and to what extent, they procrastinate. Therefore, the way that individuals view time could potentially affect the type of time management methods they use.

Scher and Ferrari (2000) also conducted a study on procrastination. For five days in a row, forty undergraduate students were asked to report tasks that they intended to complete within the next twenty-four hours. On each of the days following the task reporting, the students were asked to recall their list of activities from the previous day, and the percentage of how

much of each task had actually been completed. Results showed that procrastinators were less accurate at recalling what they had intended to do than non-procrastinators. This study implies that either procrastinators do not remember what they plan to do, or do not remember even planning to do specific tasks. Or perhaps, non-procrastinators are better at remembering simply because they actually did what they planned.

There is also research to suggest that procrastination has no effect on academic success. Pychyl, Morin, and Salmon (2000) found that although students who scored high on procrastination tests started studying later and studied much less, there was no significant difference between these groups on exam performance. Thus, in this study, it did not appear that procrastination affected academic performance.

On the other hand, some studies report that time management is helpful and sometimes essential to academic success. Britton and Tesser (1991) suggested that time management practices have proven to be a more accurate indication of college GPA than SAT scores. Freshmen students were given a test to determine their time management skill level. After four years, their cumulative college GPA information was gathered. Britton and Tesser (1991) found that "time attitudes" and "short-range planning" were the most significant predictors of college GPA. The researchers concluded that time-management attitudes and skills influence college achievement.

Conversely, there is research indicating that time management does not correlate with academic performance. Trueman and Hartley (1996) did a study of time management skills among different groups of first-year college students. Interestingly, this study noted that women reported better time-management skills than men, and that older mature students (25 or older) reported better time-management skills than younger students (younger than 25). Despite

discovering a difference in time management skills among subjects, there was not a significant correlation between time management and overall academic performance. Their study suggested that while some students may be able to organize their time better, this does not necessarily translate into better academic performance.

Much research has been done on the presence or absence of time management skills, and the effect each has on academic success. However, the contradictory nature of the majority of this research leaves the door open for further exploration.

BYU students are placed on academic probation if their semester GPAs drop below 2.0 two semesters in a row. The majority of students on academic probation at BYU cite problems with time management as the main reason why their grades are poor. BYU administrators are anxious to explore how students manage their time, the best time management practices available, and how they can better serve, not only students on academic probation, but the whole student body.

For this thesis, I collected time management data from a sample of Brigham Young University (BYU) students using surveys and an electronic time log tool. Both of these were created for the purposes of gaining a holistic and comparative account of students' time management practices. The specific aim of this study is to discover the various ways individuals plan their time, how effective their methods are, their attitudes towards time management and how the aforementioned variables correlate with academic success.

My study will build upon the work of Trueman and Hartley (1996) by using a comprehensive survey to analyze the potential correlations between time management, attitudes about time usage, and academic success. My research will also further investigate the relationship between college GPA and time management skills. Individuals from a variety of

college GPA levels will be surveyed on daily time management practices. Also, individuals' attitudes about how they use their time will be analyzed to look for potential correlations with academic success. In addition to the survey data, we will be piloting an electronic time log tool, which will be used in further research to gain a deeper understanding of BYU students' time management practices.

This thesis consists of four studies. The first study involves the creation of a time management survey. A pilot survey was created and administered to BYU freshmen in 2007. The survey was then revised and administered to all undergraduate grade levels (freshman, sophomore, junior and senior) at BYU in 2008. The survey was specifically aimed at identifying the types of attitudes BYU students have towards time management. The second study is an in depth analysis of the self-descriptor responses from the main survey data. The third study is a pilot study utilizing time logs and adjective ratings of time segments to explore how time management attitudes relate to actual time usage. The fourth study consists of several exploratory analyses that were performed on the pilot study survey data.

Study 1 – Exploration of Pilot Survey and Main Survey Data

Methods

Pilot survey participants. All participants of pilot survey were BYU freshmen. Participants were recruited via email from a list supplied by the BYU Institutional Assessment and Analysis office. The survey was emailed to 3,070 freshmen. 701 students actually completed the survey, resulting in a 23% response rate.

Main survey participants. All participants of the survey study were BYU students of all years. Participants were recruited via email from a list supplied by the BYU Institutional

Assessment and Analysis office. 846 students completed the survey. Of the total number of participants, 181 were freshmen, 225 were sophomores, 224 were juniors, and 216 were seniors.

Survey materials and procedure. The survey was constructed and revised by a mentored research group under the supervision of BYU faculty members. Questions for the survey were created to assess relationships between time management skills, attitudes about time usage, and academic success.

After reviewing the results from the pilot test of the survey, many questions were removed from the survey due to redundancy or unclear wording. In some cases, questions were reworded for clarity and put back into the survey. In other cases, we saw the need for more detailed questions and we added questions where needed. Questions from the surveys can be found in Appendix A and Appendix B.

Participants, in both the pilot study and the actual study, gained access to the survey through an electronic link that was provided in the recruitment email. Surveys were completed and submitted electronically.

Analysis of survey results. The data from the surveys were analyzed using canonical correlations, multiple regressions, multivariate analysis of variance (MANOVA), factor analysis, and multivariate graphical methods.

Results

Pilot survey results. The pilot version of the survey was taken by 1,031 persons, but not all gave complete data. The final dataset consisted of 701 persons. The predictor variables were 116 questions grouped into 16 clusters. The four criterion variables consisted of three different GPAs (high school GPA, Fall 2006 semester GPA, and Winter 2007 semester GPA) and also combined ACT scores.

First, STATA was used to run a canonical correlation procedure that served as a filter for each of the nine blocks of questions in the pilot survey that lent themselves to statistical analysis (some answers were textual). The first canonical correlation gives the upper limit of the multiple correlation between one of the clusters of survey questions and any one of the GPA/ACT variables. That is, no multiple regression using this data can have a higher multiple correlation than the canonical correlation. Figure 1 shows that the largest canonical correlation was for the response bundle that resulted from the survey question, "If you were not using a planner/organizer at the beginning of the fall semester, but started later, which of the following led you to start using one? [Check all that apply]" ("Reason Start TM Tool"). The first four canonical correlations for this variable are: 0.700, 0.586, 0.394, and 0.175. The square of 0.700 is 0.490, so this group of questions accounts for about 50% of the variance in the "best" of the four GPA/ACT variables, the largest value we can expect in a multiple correlation. Of the other eight clusters of questions, seven of them were all hovering around a canonical correlation value of 0.200, including the self-descriptors.
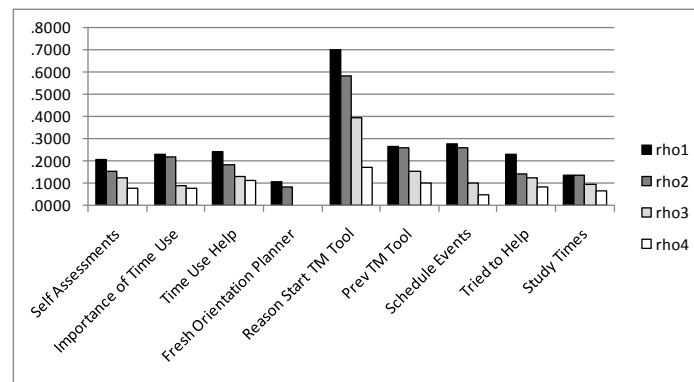
	Self A	Import TU	TU Help	Fr Orient	Start TM T	Prev TMT	Sched E	Tr to Help	Study Tim
rho1	.2054	.2296	.2429	.1113	.6995	.2647	.2777	.2301	.1392
rho2	.1582	.2207	.1834	.0840	.5863	.2599	.2609	.1425	.1363
rho3	.1253	.0933	.1314		.3944	.1559	.1001	.1275	.0996
rho4	.0800	.0776	.1157		.1750	.1046	.0483	.0870	.0684

Figure 1. Canonical correlation results from the nine categories of items in the pilot survey data.

Main Survey Results. In the second administration of the survey, after revision, 144 survey questions (predictor variables) were used, which consisted of almost all of the questions from survey one, with several dozen additional questions. Some of the questions from survey one were removed due to redundancy. The set of criterion variables was slightly different due to the various class standings of the participants. The criterion variables were cumulative GPA and three ACT scores: combined ACT, ACT English, and ACT Math. The dataset consisted of 846 persons' answers to the 144 questions.

Following the analytical procedure from the pilot study, STATA was used to run canonical correlations. Unfortunately, the data were too sparse for the "Reason Start TM Tool" to be tested. The largest of the remaining clusters was the self-descriptors cluster (Figure 2), consequently, those questions then became the focus of further investigation. The largest canonical correlation for self-descriptors with the GPA/ACT variables is 0.435, which corresponds to an R squared of 0.189. In fact, when only GPA is used as the dependent variable, with all 14 self-descriptors, the R square is 0.187, which is very close to this calculated maximum.
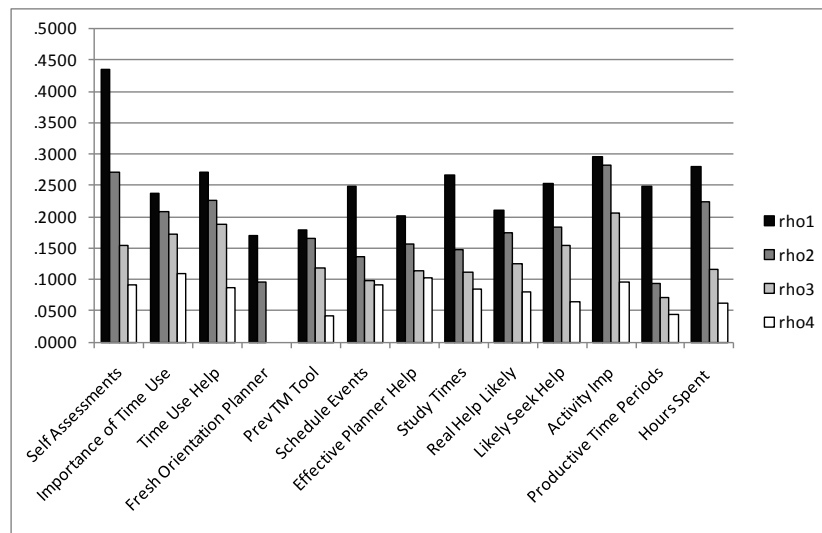
	Self A	Import TU	TU Help	Fr Orient	Prev TM T	Sched E	Eff Hlp	Study Tim	Real Hlp	Seek Hlp	Act Imp	Prod Time	Hrs Spnt
rho1	.4346	.2369	.2717	.1695	.1794	.2485	.2018	.2661	.2101	.2521	.2951	.2494	.2805
rho2	.2699	.2087	.2272	.0968	.1665	.1358	.1554	.1485	.1748	.1842	.2819	.0946	.2232
rho3	.1548	.1730	.1887		.1176	.0972	.1144	.1127	.1252	.1532	.2062	.0710	.1152
rho4	.0910	.1097	.0858		.0424	.0921	.1035	.0848	.0794	.0639	.0969	.0445	.0632

Figure 2. Canonical correlation results from the thirteen categories of items in the main survey data.

Study 2 - Analysis of Self-descriptors Data from Main Survey

A series of multiple regressions were run on the main survey self-descriptors data. The first multiple regression was based upon the cumulative scores from all participants in the main study. The next four multiple regressions were for each of the undergraduate classes separately. Finally, to assess any similarities or differences between the pilot survey study and the main survey study, a multiple regression was run on the self-descriptors data from the pilot study survey. Table 1 shows the abbreviated variable names as they relate to the actual self-descriptor questions that were on the main survey.

Table 1

Self-descriptors Abbreviations and Actual Questions from the Main Survey

Abbreviations	Self Descriptor Questions from Main Survey
collpurp	"I know what I want to get from my college experience."
skillIMP	"It is important to me to develop the skills necessary to use my time wisely."
IMorg	"I am an organized person."
Iplan	"I organize my study time carefully to make the best use of it."
procrastinate	"I rarely put off until tomorrow what I can do today."
prtztime	"I prioritize my time carefully to make sure I do everything I really need to."
Spont	"I generally prefer to do things spontaneously rather than plan ahead."
SWOTM	"I have been successful so far in school without having to manage my time carefully."
timeslips	"Time often slips away from me before I notice."
TMimp	"Using time wisely is very important to me."
frustrated	"I get frustrated when something unexpected upsets my daily plan."
adaptable	"When unexpected events occur I can usually adapt my plans and still accomplish the things that are important to me."
structure	"I have to stick with a pretty structured daily plan in order to use my time effectively."
worksforme	"I know what works best for me in terms of managing my time effectively"

Table 2 shows the multiple regression results for the entire dataset of 1087 BYU college student respondents in predicting GPA from time management attitudes as measured by the 14 self-descriptor questions.

Table 2

Multiple Regression Results of the Prediction of GPA from Fourteen Self-descriptors Questions for All Main Survey Respondents

Source	SS	df	MS				n of observ =	1087
						F(14,190)=	15.05
Model	57.263	14	4.090			p=	.0000
Residual	291.269	1072	.272			Rsq =	.1643
Total	348.532	1086	.321			Adj Rsq=	.1534
						RMS error =	.5213

	gpa	Coef.	Std Err	t	p	Confidence Interval	
1	collpurp	.0544	.0206	2.63	.0090	.0138	.0949
2	sklimp	-.0170	.0257	-.66	.5070	-.0674	.0333
3	imorg	-.0111	.0203	-.54	.5860	-.0509	.0288
4	iplan	.0949	.0203	4.68	.0000	.0551	.1347
5	procrastin~e	.0019	.0179	.11	.9160	-.0332	.0370
6	prtztime	.0399	.0215	1.85	.0640	-.0023	.0821
7	spont	-.1033	.0172	-6.01	.0000	-.1370	-.0695
8	swotm	.0944	.0160	5.89	.0000	.0629	.1259
9	timeslips	-.0107	.0161	-.66	.5060	-.0424	.0209
10	tmimp	.0629	.0273	2.30	.0210	.0093	.1165
11	frustrated	.0092	.0159	.58	.5630	-.0220	.0403
12	adaptable	.0456	.0227	2.00	.0450	.0010	.0902
13	structure	-.0285	.0159	-1.79	.0730	-.0597	.0027
14	worksforme	-.0068	.0213	-.32	.7500	-.0485	.0349
	_cons	2.4537	.2115	11.60	.0000	2.0387	2.8686

This multiple regression shows an R-squared value of 0.164 (and an adjusted value of 0.153), meaning approximately fifteen or sixteen percent of the variance in predicting GPA is accounted for by the 14 Self-descriptors. The canonical correlation upper limit was a correlation of 0.435, which corresponds to a maximum R-squared of 0.189, so this particular analysis comes fairly close to that maximum value.

Looking at the t values and their significance level for each of the 14 predictors, the strongest predictor of GPA is "Spontaneous". The negative relationship is highly significant,

where p=0.000 and t= -6.01. That is, those who say they are spontaneous tend to have lower

GPA values.

The next two strongest predictors are "Successful without time management" (highly

significant, where p=0.000 and t= 5.89), and "I plan" (highly significant, where p=0.000 and

t=4.68). Both have positive relationships with GPA. That is, those who say they are successful

without time management, and those who say they organize their study time carefully, tend to

have higher GPA values.

Table 3

*Multiple Regression Results of the Prediction of GPA from Fourteen Self-descriptors
Questions for Freshmen Main Survey Respondents*

Source	SS	df	MS			n of observ =	205
						F(14,190)=	5.04
Model	28.691	14	2.049			p=	.0000
Residual	77.235	190	.407			Rsq =	.2709
Total	105.927	204	.519			Adj Rsq=	.2171
						RMS error =	.6376

	gpa	Coef.	Std Err	t	p	Confidence Interval	
1	collpurp	.1881	.0577	3.26	.0010	.0744	.3019
2	sklimp	-.0785	.0708	-1.11	.2690	-.2181	.0611
3	imorg	.0427	.0555	.77	.4430	-.0668	.1522
4	iplan	.1739	.0665	2.62	.0100	.0428	.3050
5	procrastin~e	-.0416	.0559	-.74	.4580	-.1519	.0688
6	prtztime	.0306	.0639	.48	.6330	-.0954	.1565
7	spont	-.1672	.0456	-3.67	.0000	-.2571	-.0773
8	swotm	.1727	.0445	3.88	.0000	.0850	.2604
9	timeslips	-.0294	.0467	-.63	.5300	-.1215	.0628
10	tmimp	.0147	.0730	.20	.8400	-.1293	.1587
11	frustrated	-.0039	.0466	-.08	.9340	-.0958	.0881
12	adaptable	-.0458	.0659	-.69	.4880	-.1757	.0842
13	structure	-.0989	.0452	-2.19	.0300	-.1880	-.0098
14	worksforme	-.1124	.0580	-1.94	.0540	-.2267	.0020
	_cons	2.9127	.5742	5.07	.0000	1.7801	4.0454

Next, multiple regressions for each of the separate class levels of students were run.

Table 3 shows the multiple regression results for freshmen only. Altogether, the multiple

regression is slightly higher for freshmen than it is for the entire group of students, with an R-

squared of 0.271 (and an adjusted value of 0.217). The same two variables are strongest for

freshmen as for the group as a whole, although "Successful without time management" came in just slightly higher than "Spontaneous" in this regression.

Table 4

Multiple Regression Results of the Prediction of GPA from Fourteen Self-descriptors Questions for Sophomore Main Survey Respondents

Source	SS	df	MS				
					n of observ =	288	
					F(14,190)=	5.3	
Model	19.268	14	1.376		p=	.0000	
Residual	70.900	273	.260		Rsq =	.2137	
Total	90.168	287	.314		Adj Rsq=	.1734	
					RMS error =	.5096	

gpa	Coef.	Std Err	t	p	Confidence Interval	
1 collpurp	-.0040	.0387	-.10	.9180	-.0801	.0722
2 sklimp	-.0134	.0526	-.26	.7990	-.1169	.0901
3 imorg	.0208	.0362	.57	.5660	-.0505	.0921
4 iplan	.1257	.0366	3.43	.0010	.0536	.1977
5 procrastin~e	.0260	.0333	.78	.4350	-.0395	.0916
6 prtztime	.0329	.0411	.80	.4250	-.0481	.1139
7 spont	-.1234	.0327	-3.77	.0000	-.1878	-.0589
8 swotm	.0819	.0302	2.71	.0070	.0223	.1414
9 timeslips	.0755	.0309	2.44	.0150	.0146	.1363
10 tmimp	.0506	.0511	.99	.3230	-.0500	.1513
11 frustrated	-.0436	.0313	-1.39	.1650	-.1051	.0180
12 adaptable	.0703	.0432	1.63	.1050	-.0148	.1553
13 structure	-.0328	.0320	-1.03	.3050	-.0958	.0301
14 worksforme	.0075	.0414	.18	.8560	-.0739	.0890
_cons	2.2747	.4290	5.30	.0000	1.4300	3.1193

The multiple correlation for sophomores (Table 4) is not as high as the one for freshmen, but is still higher than the overall correlation for the entire group of students. Sophomores only had an R-squared of 0.214 (and an adjusted value of 0.173). For sophomores, "Spontaneous" once again took the lead as the self-descriptor with the strongest correlation (p=0.000, t=-3.77), followed closely by "I plan" and "Successful without time management".

Table 5

Multiple Regression Results of the Prediction of GPA from Fourteen Self-descriptors Questions for Junior Main Survey Respondents

Source	SS	df	MS			n of observ =	306
						F(14,190)=	3.56
Model	12.683	14	.906			p=	.0000
Residual	73.969	291	.254			Rsq =	.1464
Total	86.653	305	.284			Adj Rsq=	.1053
						RMS error =	.5042

	gpa	Coef.	Std Err	t	p	Confidence Interval	
1	collpurp	.0597	.0387	1.54	.1240	-.0164	.1359
2	sklimp	-.0261	.0498	-.52	.6000	-.1241	.0719
3	imorg	-.0149	.0408	-.37	.7150	-.0953	.0654
4	iplan	.0628	.0367	1.71	.0880	-.0094	.1349
5	procrastin~e	.0454	.0343	1.32	.1870	-.0222	.1129
6	prtztime	-.0033	.0404	-.08	.9360	-.0828	.0763
7	spont	-.0608	.0347	-1.75	.0810	-.1290	.0075
8	swotm	.0814	.0321	2.53	.0120	.0182	.1445
9	timeslips	-.0339	.0296	-1.14	.2540	-.0922	.0244
10	tmimp	.0603	.0561	1.07	.2840	-.0502	.1708
11	frustrated	.0225	.0282	.80	.4260	-.0331	.0781
12	adaptable	.0710	.0415	1.71	.0880	-.0106	.1526
13	structure	-.0125	.0302	-.41	.6790	-.0718	.0469
14	worksforme	.0160	.0411	.39	.6970	-.0649	.0970
	_cons	2.3806	.4016	5.93	.0000	1.5903	3.1710

The multiple correlation for juniors (Table 5) is the lowest of all of the groups, with an R-squared value of 0.146 (and an adjusted value of 0.105). The only variable with statistical significance was "Successful without time management", where p=0.012 and t=2.53.

Table 6

Multiple Regression Results of the Prediction of GPA from Fourteen Self-descriptors Questions for Senior Main Survey Respondents

Source	SS	df	MS			
				n of observ =		288
				F(14,190)=		4.49
Model	7.538	14	.538	p=		.0000
Residual	32.737	273	.120	Rsq =		.1872
Total	40.275	287	.140	Adj Rsq=		.1455
				RMS error =		.3463

	gpa	Coef.	Std Err	t	p	Confidence Interval	
1	collpurp	-.0290	.0296	-.98	.3290	-.0873	.0293
2	sklimp	.0706	.0319	2.22	.0280	.0079	.1334
3	imorg	-.0371	.0279	-1.33	.1850	-.0921	.0179
4	iplan	.0288	.0274	1.05	.2930	-.0251	.0828
5	procrastin~e	-.0177	.0232	-.76	.4470	-.0634	.0280
6	prtztime	.0929	.0291	3.19	.0020	.0356	.1503
7	spont	-.0235	.0228	-1.03	.3040	-.0684	.0214
8	swotm	.0562	.0208	2.70	.0070	.0151	.0972
9	timeslips	-.0385	.0217	-1.77	.0780	-.0813	.0043
10	tmimp	.0599	.0352	1.70	.0900	-.0095	.1293
11	frustrated	.0072	.0210	.34	.7310	-.0340	.0485
12	adaptable	.0302	.0321	.94	.3490	-.0331	.0934
13	structure	.0310	.0204	1.52	.1300	-.0092	.0713
14	worksforme	-.0257	.0284	-.90	.3680	-.0816	.0303
	_cons	2.6905	.2770	9.71	.0000	2.1452	3.2358

Finally, the multiple correlation for seniors (Table 6) was the second lowest of all the groups with an R-squared value of 0.187 (and an adjusted value of 0.146). There were only three variables that showed statistical significance for seniors; "I prioritize my time carefully…", "Developing time management skills is important" both had positive correlations, while "Successful without time management" showed a small negative correlation.

Table 7

Multiple Regression Results of the Prediction of GPA from Eleven Self-descriptors Questions for Freshmen Pilot Study Survey Respondents

Source	SS	df	MS			
				n of observ =		615
				$F(14,190)=$		1.18
Model	8.427	11	.766	p=		.2966
Residual	391.111	603	.649	Rsq =		.0211
Total	399.538	614	.651	Adj Rsq=		.0032
				RMS error =		.8054

	gpa	Coef.	Std Err	t	p	Confidence Interval	
1	collpurp	-.0007	.0399	-.0200	.9860	-.0791	.0777
2	sklimp	.0943	.0561	1.6800	.0930	-.0159	.2045
3	opentochange	-.0159	.0412	-.3900	.7000	-.0968	.0650
4	imorg	-.0131	.0435	-.3000	.7640	-.0986	.0724
5	iplan	.0129	.0418	.3100	.7580	-.0691	.0949
6	procrastin~e	.0633	.0385	1.6400	.1010	-.0123	.1390
7	prtztime	-.0094	.0436	-.2200	.8300	-.0950	.0762
8	spont	-.0622	.0346	-1.8000	.0720	-.1302	.0057
9	swotm	-.0064	.0351	-.1800	.8560	-.0754	.0626
10	timeslips	.0176	.0337	.5200	.6020	-.0486	.0837
11	tmimp	-0.15513	0.056419	-2.75	0.006	-0.26593	-0.04432
	_cons	2.9127	.5742	5.07	.0000	1.7801	4.0454

As mentioned earlier, a multiple regression was run on the self-descriptors data from the pilot survey (Table 7) to assess any similarities or differences between the pilot survey study and the main survey study. The pilot study regression was significantly lower than any and all of the main study regressions, with an R-squared value of 0.021 (and an adjusted value of 0.003). The only variable, out of the eleven self-descriptors, that showed statistical significance was "Using time wisely is very important to me." (tm imp).
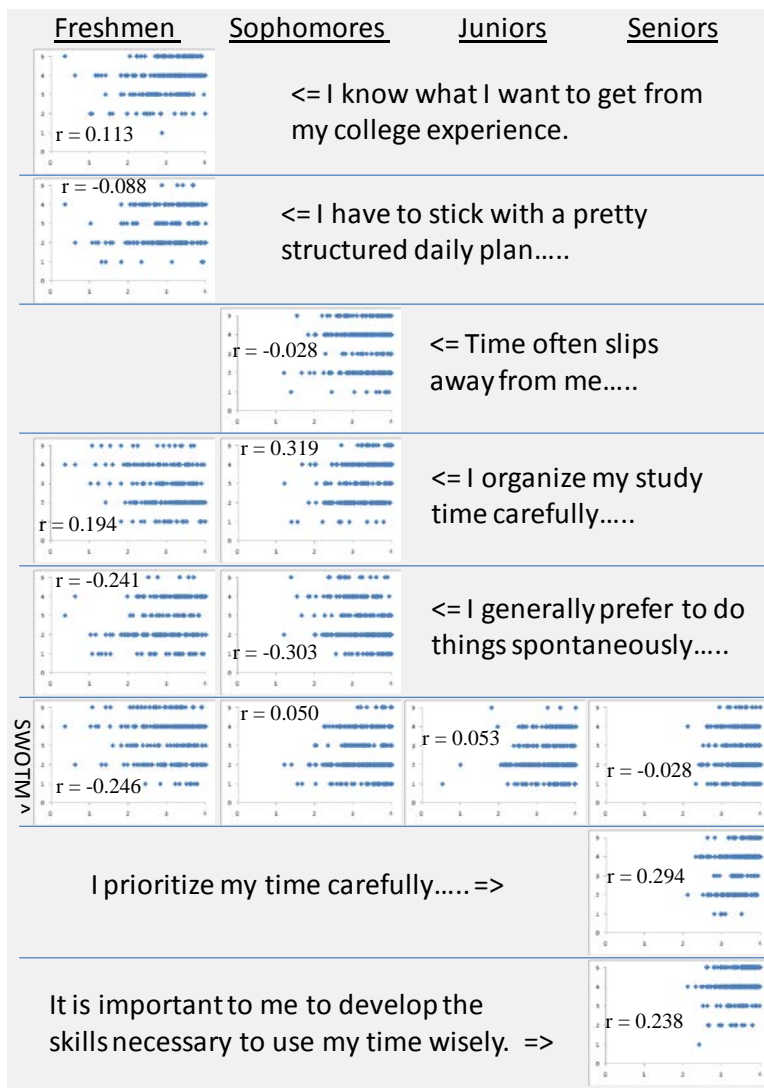
Figure 3. Matrix of scatterplots showing the relationship between GPA and eight significant self-descriptors, organized by class standing. Correlation coefficients are included.

Figure 3 serves as a summary of the significant findings from the regressions for each of

the class standing groups (freshmen, sophomores, etc.). It is a matrix of scatterplots showing the

relationship between GPA and eight significant self-descriptors.

Study 3 – Time Logs

Methods

Time log participants. The participants of the time log study included nine undergraduate BYU students participating in a mentored learning environment research group. These students were asked to participate in the time log research as part of their course requirements. This group of students was essentially considered the "control group". After reviewing the participants GPAs, all nine students were found to be in good academic standing and were high academic achievers. In addition to the aforementioned nine students, two students in the psychology major who were on academic probation, also participated in the pilot study. They were recruited through an email sent out through the Student Support Services office of the Psychology department.

Time log materials and procedure. An electronic time log tool was created in Microsoft Access by a contracted computer programmer. Participants were asked to keep time logs for one full week. In addition to the full week, they were also asked to record four "special days". These days were: their most recent productive day, their most recent unproductive day, their most recent pleasant day, and their most recent unpleasant day. Sometimes these "special days" coincided with their full week logs, but they were still recorded twice. The time log completion consisted of two parts; the first was recording the activities of the day, and the second was completing the ratings of each time segment on 17 adjective scales. The time logs took an average of five hours to complete.

Recording activities. Each participant assigned an activity from a verb list — sleep, dining at home, dining out, recreation, studying, teaching, church meeting, reading scripture, reading pleasure, exercise, travel, walking, TV, service, computer, shopping, grooming, visiting,

house chores, class, OTHER — to each 30 minute segment of time for seven consecutive days and four "special days". This allowed for analysis of the amount of time students from both the control group, and the two students on academic probation, were spending on various activities and what time of day they were participating in various activities.

Adjective ratings. After completing the activity recording process for each day, the students were asked to rate each half-hour block of time on 17 adjective scales. Each scale consisted of nine points and ranged from the anchors of *little* to *much*. These adjectives focused on how the time was spent — *productive, wasted, pleasant, unpleasant, interesting, boring, unusual, routine* — how the participant felt at that time — *tired and weary, alert, confused, clear and focused* — and how the participant felt about that time in retrospect — *regret, disappointed, ashamed, grateful, satisfied*.

Results

The time log pilot test produced interesting results about the participants' feelings regarding their time use and highlighted differences in time use between the students in the control group and the two students on academic probation.
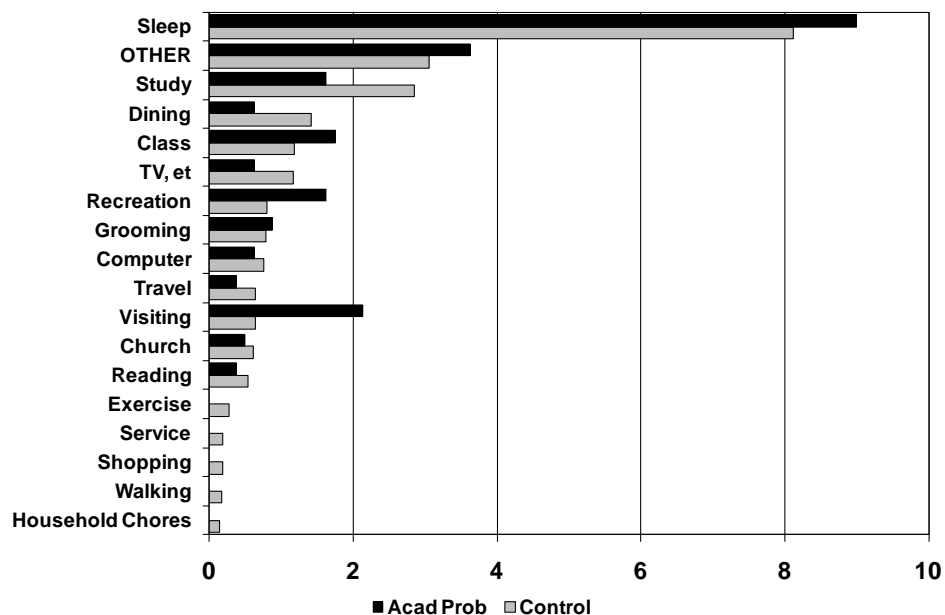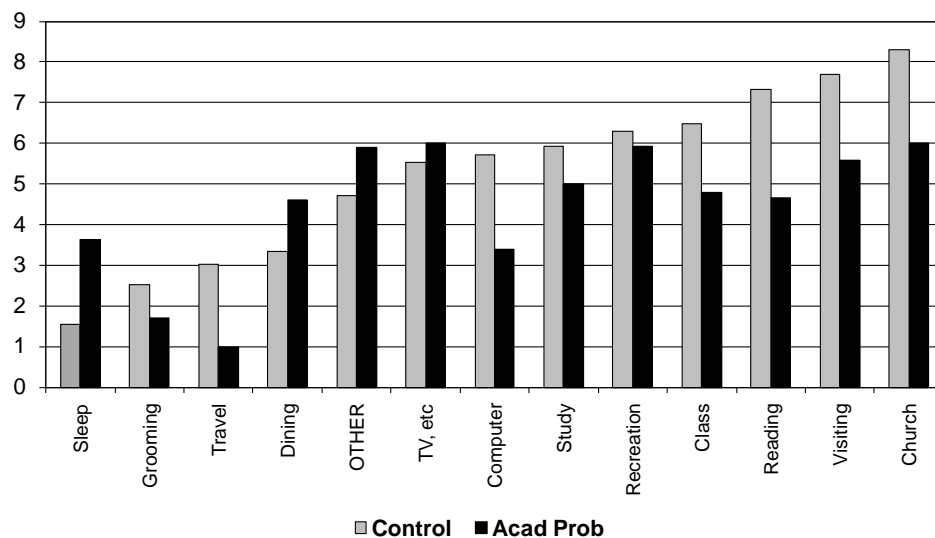
Figure 4. Comparison of average hours per day spent on each of the thirteen activity categories for the control group and students on academic probation.

Figure 4 shows a comparison between the two academic support subjects (top bar) and the nine control group subjects (bottom bar) in average hours per day for each of the time use categories. The graph shows several interesting findings. Although the students in the control group reported spending less time in class than the students on academic probation, they reported studying almost twice as much as the Probation students. It is also interesting to note that the control group reported studying two hours for every hour they were in class. University policy recommends students study two hours outside of class for every hour in class. The control group obviously took this policy more seriously than the students on academic probation, who studied less than one hour outside of class for every hour they were in class. The academic support group students also had about three times as much average visiting time in their time logs as the control group students, and about twice as much recreation.
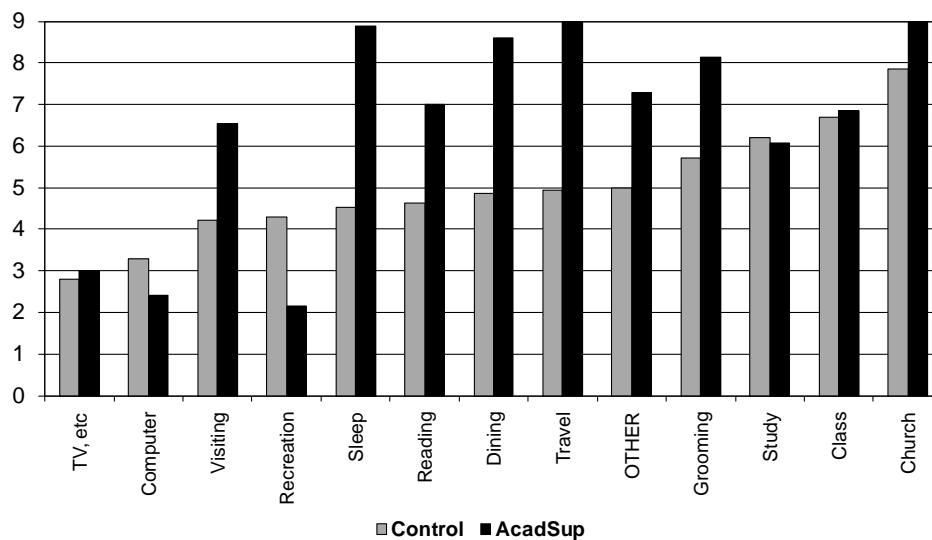
Figure 5. Comparison of "Interesting" ratings on each of the thirteen activity categories for the control group and students on academic probation.

Figure 5 shows the average ratings of how interesting each of the thirteen time use categories were to the control group (left bar) compared to the students on academic probation (right bar). The students on academic probation found the majority of these activities less interesting than the control group did. However, the academic probation students did rate "sleep" as more interesting.

Figure 6. Comparison of "Productive" ratings on each of the thirteen activity categories for the control group and students on academic probation.

Figure 6 is similar to Figure 5 except the bars now represent the average ratings of how productive each of the thirteen time use categories were to the control group (left bar) compared to the academic probation students (right bar). The results of this graph are almost opposite to the ones found above. The academic probation students found ten out of the thirteen activities to be at least somewhat more productive than the control group did. It is interesting to note that the average ratings for the academic probation students for the categories Sleep, Dining, Travel, Grooming and Church, ranged from 8.14 to 9.00 on a nine point scale.
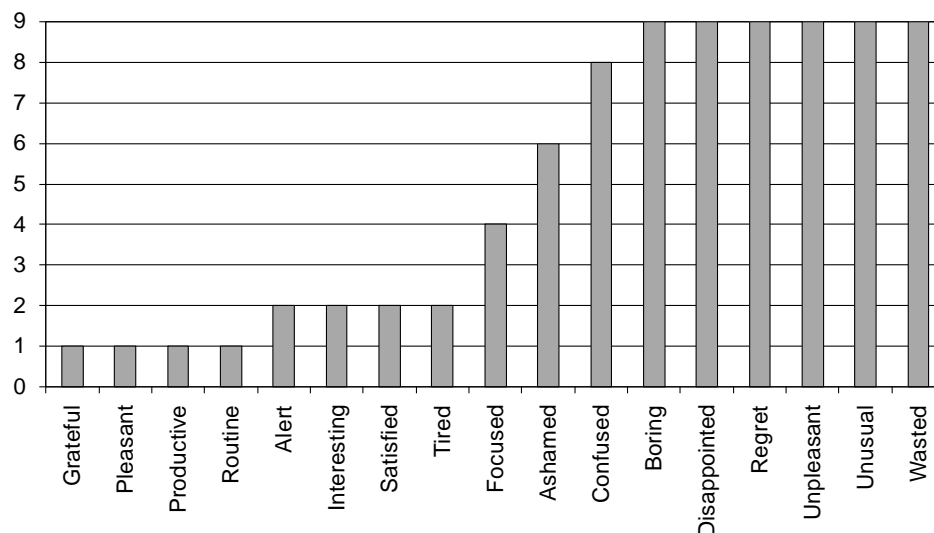
Figure 7. Seventeen adjective ratings in ascending order describing a date.

By taking the ratings for the seventeen adjectives for any given time segment, or activity, and placing the adjectives in ascending order, a verbal picture begins to emerge. Figure 7 shows the ratings, in ascending order, of a one and a half hour date that Subject 1 of the Control Group went on during their one week of recording activities. The participant gave it a nine on each of the following categories: boring, disappointed, regret, unpleasant, unusual and wasted. Obviously, the date was not a big success.
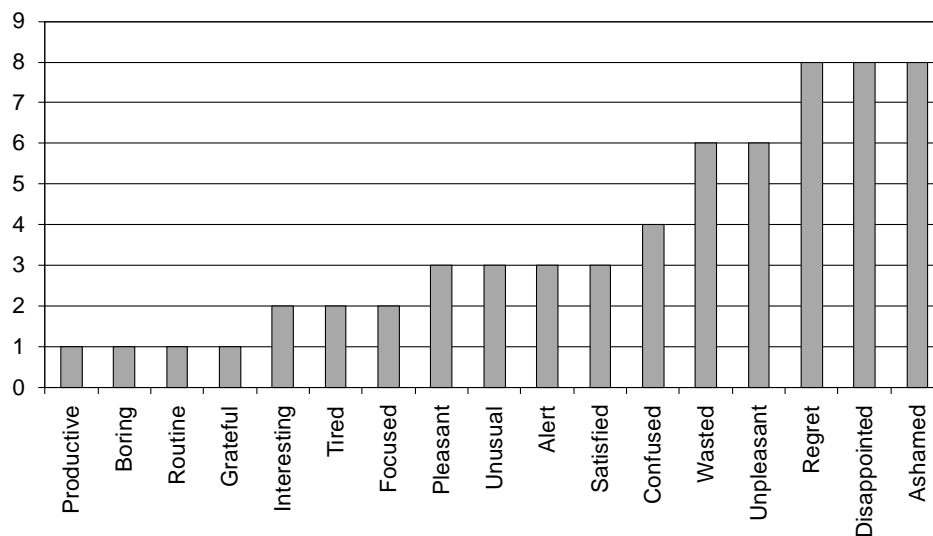
Figure 8. Seventeen adjective ratings in ascending order describing computer usage.

Another finding that was common among several participants was the negative adjectives that were commonly associated with computer usage. Figure 8 shows an example of this negative association. Those data came from Subject 5 of the control group. The six highest rated adjectives are all negative, the top three being regret, disappointed and ashamed. These adjective ratings give an inside look at how the computer was being used during this time segment; in other words, it is doubtful they were using the computer to do research or complete an assignment.

Study 4 - Additional Exploratory Analysis Results

The survey data collected during Study 1 of this thesis lent itself to many different types of analyses. The following results were not the primary findings of the study, but were interesting enough to note. All of these analyses were performed on the pilot study data.

Qualitative from Scatterplot Matrices

After seeing the results from the multiple regressions, shown above, the question arose as to whether there might be a good graphical summary of the relation between a cluster of questions, specifically the self-descriptors, and the GPA/ACT cluster. Although, due to the discrete rather than continuous nature of the survey data, it is impossible to do this directly, it is possible to factor the results into three factors and then examine the data using a scatterplot matrix (Figure 9).
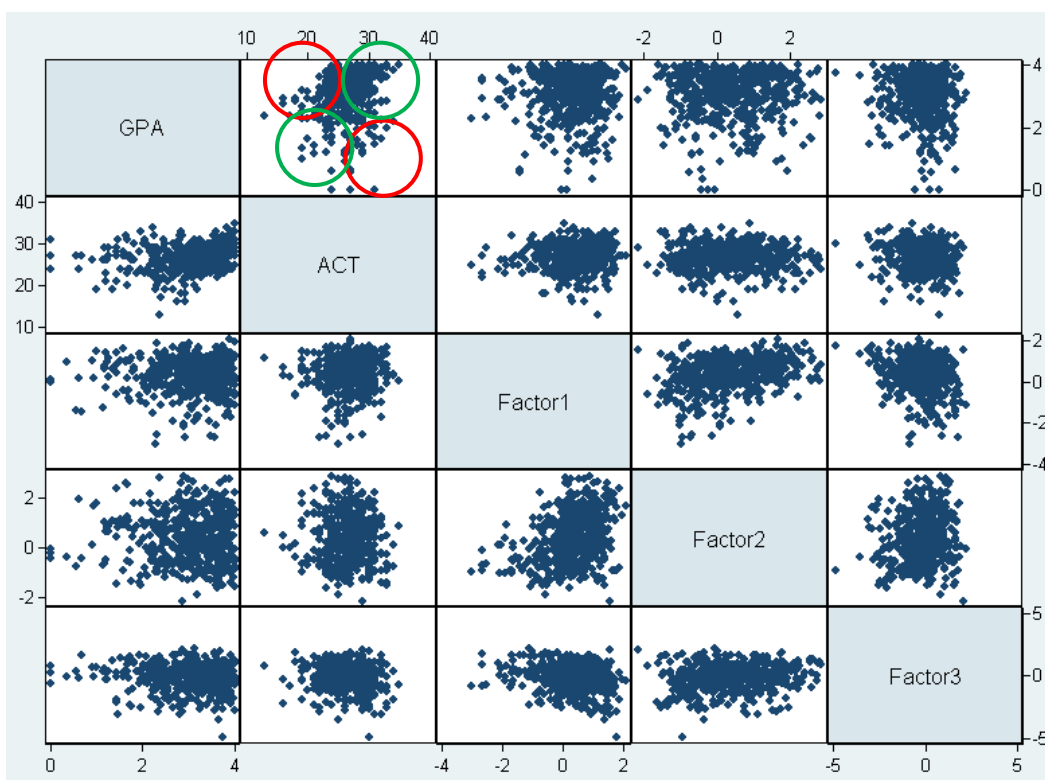

Figure 9. Generalized draftsmen display showing scatterplots for all ten combinations of GPA, ACT and the three self-descriptors factors.

Although the scatterplots investigation was fairly unproductive in terms of finding relationships between time management attitudes and GPAs and ACT scores, it did open the door to another exploration. I filtered the survey participants and looked specifically at the following four group: participants with high GPAs (3.6 or above) and high ACT scores (28 or

above) [represented in Figure 9 by the green circle in the upper right hand corner], participants with high GPAs and low ACT scores (22 or below) [represented in Figure 9 by the red circle in the upper left hand corner], participants with low GPAs (below 2.5) and high ACT scores [represented in Figure 9 by the red circle in the lower right hand corner], and participants with low GPAs and low ACT scores [represented in Figure 9 by the green circle in the lower left hand corner]. I then created tables that reported the qualitative responses of each of the participants in the aforementioned groups, for each of the eight qualitative questions asked in the pilot survey (See Appendix C for one example of the tables). Once again, it was difficult to find any distinct relationships between GPAs, ACT scores and time management attitudes, but the qualitative responses were an interesting look into the young minds of BYU freshmen.

Metrika

Of those who participated in the pilot test of the survey, 236 persons also agreed to be interviewed regarding their views on time management. The responses on the eleven self-descriptor questions for these 236 persons were factor analyzed. From an initial factor analysis of the eleven self-descriptors, the six that had the highest communality with the entire set were selected in order to create a more tightly structured factor analytic set. The six self-descriptor questions assessed how much the participant agreed with each of the following statements: "It is important to me to develop the skills necessary to use my time wisely." (skillIMP), "I am an organized person." (IMorg), "I organize my study time carefully to make the best use of it." (Iplan), "I generally prefer to do things spontaneously rather than plan ahead." (Spont), "I have been successful so far in school without having to manage my time carefully." (SWOTM), and "Using time wisely is very important to me." (TMimp).
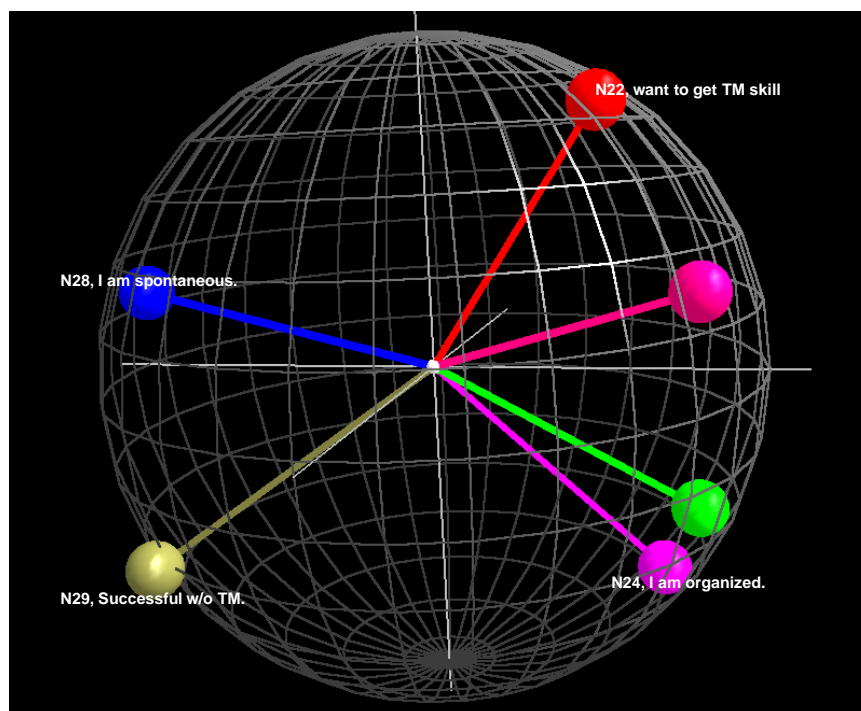
Figure 10. A two dimensional Metrika principal components plot showing the six reduced self-descriptor variables as they relate to each other in the factor space.

A two factor solution accounted for 69.3% of the variance in the six selected self-descriptor questions with eigenvalues of 2.87 and 1.29. Figure 10 shows a two dimensional plot of the factor pattern. The two vectors that define the upper right quadrant both reflect an assertion that time management is important, while the vector directly across from them, in the lower left hand corner, reflects an assertion that the respondents have been successful without time management. The two vectors in the lower right hand corner both reflect an assertion that the respondents are organized and plan their activities, whereas the vector in the upper left hand corner reflects an assertion that the respondents prefer spontaneity over planning.
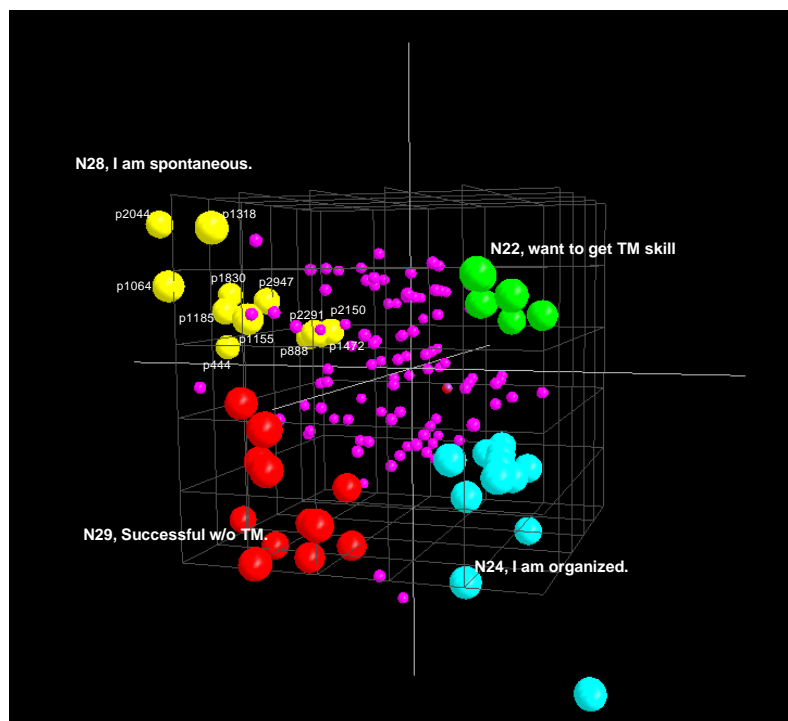
Figure 11. A two dimensional Metrika principal components plot showing the factor scores of the six reduced self-descriptor variables for the 236 participants within the same space defined in Figure 9.

Figure 11 shows the factor scores for the 236 persons within this two dimensional space. The most extreme exemplars in each of the aforementioned four quadrants were identified graphically from the factor score plot, with eight persons in the "Successful without Time Management" group, ten in the "Want to Get Time Management Skills" group, five in the "I Am Organized" group, and eight in the "I Am Spontaneous" group.

The next task was to identify whether these four categorized time management attitude groups differed with regard to their grades and ACT scores. There were no significant results on ACT scores, but these four groups differed substantially on both Fall 2006 and Winter 2007 GPAs. Using planned comparisons, it was determined that of the 20.1% of the variance in fall grades was accounted for by the classification into the four groups, 15.6% of that variance was accounted for by the comparison of Groups 1 and 4 (SWOTM &Spont) against Groups 2 and 3

(skillIMP & IMorg), F(1,27)=5.30, p=.0292. In other words, the two groups on the right (skillIMP & IMorg) have lower mean GPAs (2.64 and 2.87, respectively), while the two groups on the left (SWOTM &Spont) have mean GPAs of 3.27 and 3.49, respectively. It appears the vertical center of the plot serves as a dividing line between two distinct kinds of attitudes towards time management; on the right are students that believe in structure, planning and utilizing time management, and on the left are students that believe in spontaneity and that they can be, and have been, successful in academics without the aid of time management. It is interesting to see that the students who are concerned with time management and organize their time carefully (right side of the plot), have lower mean GPAs, than the students who seem to be confident in their ability to succeed without time management (left side of the plot).

The relationship is even stronger for the Winter 2007 GPAs. Using planned comparisons, it was determined that of the 24.7% of the variance in fall grades was accounted for by the four groups, 20.3% of that variance was accounted for by the comparison of Groups 1 & 4 (SWOTM &Spont) against Groups 2 &3 (skillIMP & IMorg), F(1,27)=7.28, p=.0119. In other words, the two groups on right (skillIMP & IMorg), yet again, have lower mean GPAs (2.58 and 2.75, respectively), while the two groups on the left (SWOTM & Spont) have higher mean GPAs of 3.25 and 3.38, respectively. It appears that, once more, the confident students outperform the concerned students in regard to GPA.

Other Findings

Planner usage. The most common items that students reported recording in their planners were assignment due dates and tests, to-do lists, and classes and labs. The least commonly recorded items were study time, recreation and exercise, and personal time.

Resources for help. Participants reported that they received better quality help in developing time management skills from relational sources, such as parents and friends, than from institutional sources, such as advisement or counseling centers. As might be expected, participants also stated that were more likely to utilize relational sources when seeking time management help in the future.

Likelihood of seeking help. Seventy six percent of the participants reported that they were not at all or only somewhat likely to seek any help developing their time management skills. Of those who said that they were not at all likely to seek time management help, slightly more than half (51%) reported that they had no need of such help, while another 30.2% said they had no time to take advantage of such help.

When compared with the students who were somewhat to very likely to seek time management help, students who reported that they were not at all likely to seek help were also less likely to view wise time use and the development of time management skills as important, and were more likely to report having been successful in school without time management.

Study Habits. Students who agreed most with self-assessments such as, "I am an organized person" and "I prioritize my study time to make the most of it", and who disagree with statements such as, "I generally prefer to do things spontaneously", reported studying for longer periods of time than those who did not. They also reported studying earlier in the day (morning or afternoon) rather than at night, though this was truer of male students than of female students.

The questions regarding what time of day the participants study produced many isolated but interesting results. Those who reported studying early in the morning were more likely to have started using a planner early in their academic lives, while those who reported studying late at night were more likely to have started using a planner after beginning the fall semester of their

Freshman year at BYU. Those who considered themselves to be organized people were more likely to study in the morning, afternoon, and night, and were less likely to study late at night. Those who prioritized their time were more likely to study in the morning, afternoon, and evening, and were less likely to study late at night. Those who reported that they had been successful without having to manage their time studied less in the morning, afternoon, and evening, and far more often late at night. Those who used a planner were more likely to study in the morning, afternoon, and evening, and were less likely to study late at night.

Discussion

After completing this thesis, it is easy to see why it is possible that so many researchers in various fields have spent years researching time management. The innumerable facets of time management attitudes, skills, and practices are complex and often difficult to measure and study. This thesis utilized many different types of analyses to examine the time management attitudes and practices of BYU students and relate those findings to GPA.

The most astounding result, from both the pilot survey and main survey analyses, was the number of students who reported utilizing relational sources, specifically parents, for time management help. An overwhelming number of participants reported seeking time management help from relational sources over institutional sources, like the counseling center. This could have a significant implication for universities if this finding is replicated in future research. This emphasis on the importance of relational sources, like parents, friends, and professors, could be a crucial concept for academic advisors, counselors and student affairs staff. These institutional sources should focus on building relationships of trust with the students they help to ensure the best outcome in time management efficiency. And even if those relationships may not be possible at a university level, then the institutional sources may at least be able to point the

students towards people they trust for the help they need. Perhaps some of the funding for advisement centers could be used to distribute educational materials for parents, in order to help them better serve their students.

The self-descriptors data from the main survey showed an interesting progression of time management attitudes that related to GPA as students advanced through their undergraduate careers (Figure 3). Freshmen and sophomores both showed a negative relationship between spontaneity and GPA($r = -0.241$ and $r = -0.303$, respectively), while both, but especially sophomores, showed fairly strong positive relationships between planning their time and GPA. Juniors were an anomaly of the four class standings with only one self-descriptor showing significance with GPA; they showed a weak positive relationship ($r = 0.050$) with "Successful without time management". We once again begin to see a positive relationship between time management skills and using time wisely and GPA when students become seniors. The senior participants showed positive correlations between GPA and prioritizing time, and GPA and saying that time management skills are important. There was also a negative correlation between GPA and students assertions that they have been successful without time management. Based on these results, it seems that both freshmen and sophomores should be concerned with organization and planning their time to ensure higher GPAs.

The idea that freshmen should try to utilize time management and organizational skills in order to achieve good grades, however, was not reinforced by the planned comparisons results from the pilot survey study that used only freshmen as participants. Freshmen whose factor scores reflected an appreciation for time management and organization, and thus placed them on the right side of the Metrika graph (Figures 10 and 11) tended to have lower GPAs. In future research, these same planned comparisons should be run on all grade levels in order to either

confirm the results from the pilot survey (i.e., freshmen who value and utilize time management may have lower GPAs than those who are more spontaneous) or support the findings from the main survey (i.e., freshmen and sophomores should plan their time carefully to achieve higher GPAs).

Another noteworthy finding was made by simply looking at the matrix of scatterplots showing the relationship between GPA and eight significant self-descriptors for the four class standings (Figure 3). When comparing the range of GPAs that exist from freshmen up to seniors, it is easy to see that the clusters get tighter as students progress through school. In the freshmen plots, the GPAs range from less than 0.5 to 4.0. However, when you look at the Senior plots all GPAs are above 2.0. There are two possible reasons this might occur. The first is that students with GPAs lower than 2.0 are put on academic probation before their Senior year and successfully raise their GPAs. The other possibility is that those students with low GPAs either leave the University of their own volition or are asked to leave due to consistently poor grades.

The time log study revealed some stark differences between students on academic probation and our control group, high achieving students with good, if not excellent GPAs. Obviously the small sample size of students on academic probation does not make these results highly reliable, but the time log tool, the methods of analysis, and the preliminary findings, will serve as an excellent starting point for future research. It will be interesting to see if the initial results will be confirmed when an appropriate number of students on academic probation are recruited as participants. Future results will provide useful information about how to aid students who are in need of academic support. Additionally, they will provide valuable information about the time management skills of highly productive and academically achieving students.

While this thesis has not been able to bring about any conclusive evidence regarding the importance of time management skills for students at BYU, it has opened the door for further investigation into time management attitudes and usage.

Appendix A

Time management pilot survey questions

Indicate the extent to which you agree or disagree with the following statements as they apply to you. *(1=Strongly disagree, 5=Strongly agree)*

"I know what I want to get from my college experience."
"It is important to me to develop the skills necessary to use my time wisely."
"When something I am doing is not working well, I stick with my approach rather than try something new."
"I am an organized person."
"I organize my study time carefully to make the best use of it."
"I rarely put off until tomorrow what I can do today."
"I prioritize my time carefully to make sure I do everything I really need to."
"I generally prefer to do things spontaneously rather than plan ahead."
"I have been successful so far in school without having to manage my time carefully."
"Time often slips away from me before I notice."
"Using time wisely is very important to me."

Using the scale below, tell us how helpful the following have been in helping you understand the importance of using time wisely. (Use 'NA' if the item does not apply to you) (1=Not at all helpful, 7=Extremely helpful)

"BYU courses (such as 'Student Development')"
"BYU faculty member(s)"
"Peer mentors"
"Friends"
"High school teachers"
"Media sources (books, magazines, internet sites, etc.)"
"BYU New Student Orientation"
"Parents"
"BYU Counseling Center workshops"
"Other"
　　　　"Tell us about the 'other' things you referred to in the previous question that have helped you learn the importance of using time wisely?"

Using the scale below, tell us how helpful the following have been in helping you understand what to do in order to make the best use of your time (e.g. developing habits or practices that work for you). (1=Not at all helpful, 7=Extremely helpful)

"BYU courses (such as 'Student Development')"
"BYU faculty member(s)"
"Peer mentors"
"Friends"
"High school teachers"
"Media sources (books, magazines, internet sites, etc.)"
"BYU New Student Orientation"
"Parents"
"BYU Counseling Center workshops"
"Other"
"Tell us about the 'other' things you referred to in the previous question that have helped you understand what to do to use time wisely?"

The BYU Office of First-Year Experience and Freshman Academy distribute a free planner during New Student Orientation and through other programs during the first weeks of Fall semester. Did you receive one of these planners towards the beginning of your freshman year?

"Yes"
"No"

Do you currently use any kind of planning or organizing tool to help you manage your time?

"Yes"
"No"

When did you begin using a planning/organizing tool?

"Middle School/Junior High School"
"High School"
"Beginning of Fall semester, this year"
"Part-way through Fall semester, this year"
"Beginning of Winter semester, this year"
"Part-way through Winter semester, this year"
"Other-explain"

If you were not using a planner/organizer at the beginning of the fall semester, but started later, which of the following led you to start using one? (Check all that apply.)

"Poor test scores or paper grades early in fall semester"
"Poor grades at fall midterm"
"Poor final grades for fall semester"
"Feeling lost"
"Feeling overwhelmed-too many projects, papers, tests, etc."
"Missed turning in assignments or projects on time"
"Encouragement from others"
"Missing social events"
"Other"

Which of the following do you currently use most often for planning or managing your time?

"Planner distributed through New Student Orientation or Freshman Academy"
"Another planner associated with BYU"
"Non-BYU planner"
"PDA/Cell phone/Other electronic device"
"Notebook/note cards/to-do list"
"Other-specify"

Have you ever used a different planning/organizing tool than the one you are currently using?

"Yes"
"No"

Which of the following have you used previously? (Check all that apply.)

"Cell phone"
"Planner distributed through New Student Orientation or Freshman Academy"
"Another planner associated with BYU"
"Mental list/remembering"
"Notebook/note cards"
"Non-BYU planner"
"PDA/ Other electronic device"
"To-Do list"
"Other-specify"

What are your reasons for not using a planning tool?

What are your reasons for using the planning tool you are currently using?

To what extent do you include or schedule the following items in your planner?
(1=Not at all, 7=Fully)
>"Assignment due dates and test dates"
>"Social activities"
>"Church responsibilities/callings"
>"Classes and labs"
>"Personal time"
>"Study time"
>"Recreation, exercise"
>"To-do list"

How often do you look back through your planner/organizer to see how you have spent your time?

>"Every day"
>"Several times a week"
>"Once a week"
>"Several times a month"
>"Once a month"
>"Less than once a month"
>"Never"

Which of the following have tried to help (either because you asked or because it was volunteered) you understand how to most effectively use the planner/organizer you use currently? (Check all that apply)
>"BYU faculty member"
>"Counselor/Advisor"
>"Peer mentors"
>"Media sources (books, magazines, internet sites, etc.)"
>"New Student Orientation session"
>"Another student"
>"Parent"
>"A class ('Student Development', for example)"
>"BYU Counseling Center workshops"
>"Other"
>>*"Please describe or explain the other source(s) of help you referred to in the previous question."*

How helpful have each of the following been in learning to use the planning/organizing tool that you currently use? (Use 'NA' if the item does not apply to you) (1=Not at all helpful, 7=Extremely helpful)

"BYU faculty member"
"Counselor/Advisor"
"Peer mentors"
"Media sources (books, magazines, internet sites, etc.)"
"New Student Orientation session"
"Another student"
"Parent"
"A class ('Student Development', for example)"
"BYU Counseling Center workshops"
"Other"
"Please describe or explain the other source(s) of help you referred to in the previous question."

On average, how often do you write in a personal journal to record or describe events of the day?
"Every day"
"Several times a week"
"Once a week"
"Several times a month"
"Once a month"
"Less than once a month"
"Never"

Think about the length of the blocks of time you usually study in (outside of class). Some might be relatively short (like 20-30 minutes), perhaps occurring between classes or other events. Others might be longer, more sustained blocks of time. Using the scale below, indicate how often you study in shorter or longer time blocks.

"Always or almost always in short blocks"
"More often in short blocks"
"About even"
"More often in long blocks"
"Always or almost always in long blocks"

Roughly speaking, how often do you study during each of the following times of day?
Never, Rarely, Occasionally, Often, Very often

"6am-9am"
"9am-12pm"
"12pm-3pm"
"3pm-6pm"
"6pm-9pm"
"9pm-12am"
"12am–3am"
"3am-6am"

How likely are you to seek help developing or improving your time management skills?
"Very unlikely",
"Quite unlikely",
"Somewhat unlikely",
"Somewhat likely",
"Quite likely",
"Very likely"

What leads you to say that you would not seek help developing or improving time management skills?

"I don't need help learning these skills."
"I have tried using resources which did not help."
"The resources I know about are too expensive for me"
"I don't have time to take advantage of any help."
"Other - explain"

In your opinion, how likely is it that you would get meaningful help learning to use your time more effectively from ...? (1=Very unlikely, 7= Very likely)

"BYU department or college advising center"
"BYU Counseling Center workshops"
"BYU Counseling Center advisors"
"BYU faculty member"
"RA/Hall Advisor"
"Friends"
"Parents"
"Peer mentor"

What do you wish you had known about time management when you started your freshman year of college?

We plan to conduct follow-up interviews with a few students (over lunch that we provide) to help us better understand some of the issues we have asked about here. Would you be willing to participate in a follow-up interview?)

      "Yes"
      "No"

Appendix B

Time management main survey questions

Indicate the extent to which you agree or disagree with the following statements as they apply to you. *(1=Strongly disagree, 5=Strongly agree)*

"I know what I want to get from my college experience."
"It is important to me to develop the skills necessary to use my time wisely."
"I am an organized person."
"I organize my study time carefully to make the best use of it."
"I rarely put off until tomorrow what I can do today."
"I prioritize my time carefully to make sure I do everything I really need to."
"I generally prefer to do things spontaneously rather than plan ahead."
"I have been successful so far in school without having to manage my time carefully."
"Time often slips away from me before I notice."
"Using time wisely is very important to me."
"I get frustrated when something unexpected upsets my daily plan."
"When unexpected events occur I can usually adapt my plans and still accomplish the
        things that are important to me."
"I have to stick with a pretty structured daily plan in order to use my time effectively."
"I know what works best for me in terms of managing my time effectively."

Using the scale below, tell us how helpful the following have been in helping you understand the importance of using time wisely. (Use 'NA' if the item does not apply to you) *(1=Not at all helpful, 7=Extremely helpful)*

"BYU courses (such as 'Student Development')"
"BYU faculty member(s)"
"Peer mentors"
"Friends"
"High school teachers"
"Media sources (books, magazines, internet sites, etc.)"
"BYU New Student Orientation"
"Parents"
"Employers"
"Church leaders (e.g. bishop, mission president)"
"BYU department or college advising center"
"RA/Hall Advisor"
"BYU Counseling Center workshops"
"Other"
        *"Tell us about the 'other' things you referred to in the previous question that have
        helped you learn the importance of using time wisely?"*

Using the scale below, tell us how helpful the following have been in helping you understand what to do in order to make the best use of your time (e.g. developing habits or practices that work for you). (1=Not at all helpful, 7=Extremely helpful)

"BYU courses (such as 'Student Development')"
"BYU faculty member(s)"
"Peer mentors"
"Friends"
"High school teachers"
"Media sources (books, magazines, internet sites, etc.)"
"BYU New Student Orientation"
"Parents"
"Employers"
"Church leaders (e.g. bishop, mission president)"
"BYU department or college advising center"
"RA/Hall Advisor"
"BYU Counseling Center workshops"
"Other"
"Tell us about the 'other' things you referred to in the previous question that have helped you understand what to do to use time wisely?"

The BYU Office of First-Year Experience and Freshman Academy distribute a free planner during New Student Orientation and through other programs during the first weeks of Fall semester. Did you receive one of these planners towards the beginning of your freshman year?

"Yes"
"No"

Do you currently use any kind of planning or organizing tool to help you manage your time?

"Yes"
"No"

When did you begin using a planning/organizing tool?

"Middle School/Junior High School"
"High School"
"Beginning of Fall semester, this year"
"Part-way through Fall semester, this year"
"Beginning of Winter semester, this year"
"Part-way through Winter semester, this year"
"Other-explain"

If you were not using a planner/organizer at the beginning of the fall semester, but started later, which of the following led you to start using one? (Check all that apply.)

"Poor test scores or paper grades early in fall semester"
"Poor grades at fall midterm"
"Poor final grades for fall semester"
"Feeling overwhelmed-too many projects, papers, tests, etc."
"Missed turning in assignments or projects on time"
"Encouragement from others"
"Other"

Which of the following do you currently use most often for planning or managing your time?

"Planner distributed through New Student Orientation or Freshman Academy"
"Another planner associated with BYU"
"Non-BYU planner"
"PDA/Cell phone/Other electronic device"
"Notebook/note cards/to-do list"
"Other-specify"

Have you ever used a different planning/organizing tool than the one you are currently using?

"Yes"
"No"

Which of the following have you used previously? (Check all that apply.)

"Planner distributed through New Student Orientation or Freshman Academy"
"Another planner associated with BYU"
"Non-BYU planner"
"PDA/Cell phone/Other electronic device"
"Notebook/note cards/to-do list"
"Other-specify"

What are your reasons for not using a planning tool?

To what extent do you include or schedule the following items in your planner?
(1=Not at all, 7=Fully)

> "Assignment due dates and test dates"
> "Social activities"
> "Church responsibilities/callings"
> "Classes and labs"
> "Personal time"
> "Study time"
> "Recreation, exercise"
> "Job related activity"
> "To-do list"

How often do you look back through your planner/organizer to see how you have spent your time?

> "Every day"
> "Several times a week"
> "Once a week"
> "Several times a month"
> "Once a month"
> "Less than once a month"
> "Never"

How helpful have each of the following been in learning to use the planning/organizing tool that you currently use? (Use 'NA' if the item does not apply to you) (1=Not at all helpful, 7=Extremely helpful)

> "BYU faculty member"
> "Counselor/Advisor"
> "Peer mentors"
> "Media sources (books, magazines, internet sites, etc.)"
> "New Student Orientation session"
> "Another student"
> "Parent"
> "A class ('Student Development', for example)"
> "BYU Counseling Center workshops"
> "Other"
>> *"Please describe or explain the other source(s) of help you referred to in the previous question."*

Think about the length of the blocks of time you usually study in (outside of class). Some might be relatively short (like 20-30 minutes), perhaps occurring between classes or other events. Others might be longer, more sustained blocks of time. Using the scale below, indicate how often you study in shorter or longer time blocks.

"Always or almost always in short blocks"
"More often in short blocks"
"About even"
"More often in long blocks"
"Always or almost always in long blocks"

Roughly speaking, how often do you study during each of the following times of day?
Never, Rarely, Occasionally, Often, Very often

"6am-9am"
"9am-12pm"
"12pm-3pm"
"3pm-6pm"
"6pm-9pm"
"9pm-12am"
"12am–3am"
"3am-6am"

How likely are you to seek help developing or improving your time management skills?
"Very unlikely",
"Quite unlikely",
"Somewhat unlikely",
"Somewhat likely",
"Quite likely",
"Very likely"

What leads you to say that you would not seek help developing or improving time management skills?

"I don't need help learning these skills."
"I have tried using resources which did not help."
"The resources I know about are too expensive for me"
"I don't have time to take advantage of any help."
"Other - explain"

In your opinion, how likely is it that you would get meaningful help learning to use your time more effectively from ...? *(1=Very unlikely, 7= Very likely)*

"BYU department or college advising center"
"BYU Counseling Center workshops"
"BYU faculty member"
"RA/Hall Advisor"
"Friends"
"Parents"
"Peer mentor"

How likely is it that you will seek help in learning to use time more effectively from ...?

"BYU department or college advising center"
"BYU Counseling Center workshops"
"BYU faculty member"
"RA/Hall Advisor"
"Friends"
"Parents"
"Peer mentor"

On a 1-7 scale (1=Not at all important, 7=Extremely important), how important are the following to you at this point in your life?

"Socializing/Dating"
"Learning (related to courses or not)"
"Getting good grades"
"Personal spirituality"
"Personal health"
"Preparing for a career"
"Extra-curricular activities (athletics, performance teams, clubs, etc.)"

Generally speaking, how mentally focused and productive are you during the following times of day? *(1=Not at all   7=Extremely")*

"6am-9am"
"9am-12pm"
"12pm-3pm"
"3pm-6pm"
"6pm-9pm"
"9pm-12am"
"12am–3am"
"3am-6am"

In a typical school day at BYU, about how many hours do you devote to … ? Please use numerals [0, 2.5, 8 etc.], and enter something in each block. (Note: This list is not meant to include everything you might do in a day, so the hours do not need to total 24.)

"Academic work (e.g. attending classes and labs, studying, writing papers, completing assignments or projects, rehearsing)"
"Personal spiritual development (e.g. scripture study, prayer)"
"Working for pay (on or off campus)"
"Sleeping"
"Socializing in person (e.g. group activities, dating, hanging out)"
"Using the internet for purposes not related to school work (e.g. surfing, instant messaging, Facebook)"
"Extra-curricular activities (e.g. intramurals, clubs, athletic or performance teams)"
"Relaxing (e.g. watching tv, playing video games)"

On a scale of 1-7, how stressed have you felt this semester?

"Not at all stressed"
"2"
"3"
"4"
"5"
"6"
"Extremely stressed"

What has caused you stress?

How are you performing academically this semester?

"I am not close to meeting my academic goals"
"I am reasonably close to meeting my academic goals"
"I am meeting my academic goals"
"I am exceeding my academic goals"
"I am far exceeding my academic goals"

What do you wish you had known about time management when you started your freshman year of college?

We plan to conduct follow-up interviews with a few students (over lunch that we provide) to help us better understand some of the issues we have asked about here. Would you be willing to participate in a follow-up interview?)

"Yes"
"No"

Appendix C

Table of qualitative responses to the question "What are your reasons for not using a planning tool?", separated by GPA and ACT.

		HI GPA	LO GPA
HI ACT		I don't currently have one. If I did, I think I would be too lazy to use it effectively.	don't feel like it
		I forgot.	I always lose them or else lose interest in them
		I'll write things down in it, but I don't ever look in it again.	I can do it fine in my head, there is no need to carry around something that just takes up space to tell me when I have something. And most of my weeks are routine
		I'm usually either too busy or too lazy to open my backpack and grab the planner when I need to write something down.	i don't need it to remember.
		It is all "stored in my head"	
		It takes to much time to write everything down.	
		I've never really used one before, and I never got into the habit of using a planner this year.	
		My plans change too much to put anything in writing. Once I get in a routine for a semester, I can usually get on top of everything.	
		Since my mission I have not seen a planner that I like.	
LO ACT			I keep my syllibi with me, and have everything in my head. I have tried using a planner before but I never really look at it, so I stopped using it. Using my memory is more effective and efficient for me.

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